



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

**OFFICE OF PREVENTION, PESTICIDES
AND TOXIC SUBSTANCES**

July 17, 2007

MEMORANDUM

SUBJECT: Effects Determinations for Diazinon Relative to the California Red-Legged Frog and Designated Critical Habitat

FROM: Thomas Steeger, Ph.D., Senior Biologist *Thomas Steeger*
Environmental Risk Branch 4
Environmental Fate and Effects Division

TO: Arthur-Jean B. Williams, Associate Director
Environmental Fate and Effects Division

Attached is the assessment of potential direct and indirect effects to the California red-legged frog (CRLF) and potential adverse modification to designated critical habitat from uses of the insecticide diazinon. While the Endangered Species Act requires we assess uses of pesticides relative to any potentially affected listed species, this assessment focuses only on the CRLF, including designated critical habitat, addressing provisions of a settlement agreement entered into by the federal government to resolve claims made by plaintiffs against EPA in a court case (CBD v. EPA¹).

The attached assessment was conducted consistent with the Agency's Overview Document². Effects determinations for this assessment are summarized below:

- the assessment resulted in a determination that the use of pesticide products containing diazinon may effect, and is likely to adversely affect (LAA) the California red-legged frog. This determination is based on diazinon's potential to both directly and indirectly affect the species.
- Diazinon is likely to directly affect the CRLF in both aquatic and terrestrial habitats due to chronic and acute exposures.
- Potential indirect effects include a reduction in prey in aquatic and terrestrial habitats for both acute and chronic exposures.

¹ Settlement agreement of October 20, 2006: Center for Biological Diversity v. United States Environmental Protection Agency. Civ. No: 02-1580-JSW(JL)).

² Overview of the Ecological Risk Assessment: Process in the Office of Pesticide Programs, U.S. Environmental Protection Agency: Endangered and Threatened Species Effects Determinations: January 23, 2004.

- Risk quotient (RQ) values for both vascular and non-vascular plants in aquatic and terrestrial habitats do not exceed the level of concern (LOC); therefore, indirect effects to the California red-legged frog through effects on aquatic and terrestrial habitats is a “no effect” (NE) determination.
- Labeled uses of diazinon within the action area may adversely modify the designated critical habitat of the CRLF by altering chemical characteristics necessary for normal growth and viability of juvenile and adult CRLFs and their food source.
- **Tables 1a, 1b and 1c** of the executive summary of the Pesticide Effects Determination document provides a more detailed account of the effects determination.

As required by the Alternative Consultation Agreement EPA entered into with the U.S. Fish and Wildlife Service and National Marine Fisheries Service (Services), I have been trained by the Services to make such determinations. Additionally, this assessment was subjected to internal Agency peer review throughout its development. The review panel included other scientists who have been trained by the Services to make such determinations (Dr. Edward Odenkirchen and Dr. Melissa Panger).

Please let me know if you have any questions regarding this assessment and effects determination for diazinon relative to the CRLF and its designated critical habitat.

cc: Steven Bradbury
Peter Caulkins

Attachments